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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LUU, THANH X

ART UNIT PAPER NUMBER

2878

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/928,967

Applicant(s)

REIME ET AL.

Examiner

Thanh X. Luu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,7-29 and 32-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,15 and 23 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 32-34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to amendments and remarks filed December 10, 2004. Claims 1, 5, 7-29 and 32-34 are currently pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, 7-9, 11-14, 16-18, 21, 22, 24 and 26-28, are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. (U.S. Patent 3,673,327).

Regarding claims 1, 5, 7-9, 11-14, 16-18, 21, 22, 24 and 26-28, Johnson et al. disclose (see Fig. 4) a method and device of sensing and detecting the presence of an object (finger) at a touch pad device having one or more input functions, wherein the device has a designated interaction area (at 10") for allowing a user to use the object to interact with the touch pad device for activating one or more input functions depending on a location of the object, the designated interaction area having a periphery (see Fig. 3), and wherein the device has a surrounding area substantially surrounding the periphery of the designated interaction area, the method comprising the steps of: providing in the surrounding area at least one group of optical sensor components including a first light emitter (one instance of 21"), a second light emitter (another instance of 21") and a light receiver (all instances of 25" and the one 55) in the device at different locations such that the receiver is capable of receiving a first amount of light

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emitted by the first light emitter and reflected by the object and a second amount of light emitted by the second light emitter and reflected by the object, wherein when the object is present at the device, causing a change in the first and second amount of light, measuring separately the change in the first and second amount of light for providing a first signal and second signal indicative of the respective changes; and determining the location of the object in the designated interaction area in relation to the first and second light emitter by comparing the changes in the amount of light based on the first and second signals. The method of Johnson et al. is carried out repeatedly as claimed. Johnson et al. also disclose (see Fig. 3) the interaction area has an upper (top), lower (bottom), left (top) or right (bottom) side, and the sensor components are placed on one (lower) of the sides. In addition, Johnson et al. disclose (see col. 3, lines 30-35) pulsing the light emitters at a predetermined frequency; changes in the first and second amount of light inherently contain a frequency component of the predetermined frequency. Johnson et al. also disclose (see Fig. 2) third and fourth emitters and a further receiver as claimed. Also, Johnson et al. disclose (see Fig. 4) a light guide (13") for guiding light by way of internal total reflection as claimed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 19, 20, 25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al.

Regarding claims 19 and 20, Johnson et al. disclose the claimed invention as set forth above. Johnson et al. do not specifically disclose LEDs or infra-red (IR) light. However, LEDs and using IR light is notoriously well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide LEDs or IR light in the apparatus and method of Johnson et al. to more efficiently provide light and reduce interference from visible light.

Regarding claim 25, Johnson et al. disclose the claimed invention as set forth above. Johnson et al. do not specifically disclose disabling the first light emitter when the second light emitter is measured. However, disabling a light emitter when measuring an adjacent light emitter is well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide such a disabling function the apparatus and method of Johnson et al. to reduce interference from adjacent light emitters and improve detection.

Regarding claim 29, Johnson et al. disclose the claimed invention as set forth above. Johnson et al. do not specifically an LCD. However, LCDs are notoriously well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an LCD the apparatus and method of Johnson et al. to more provide a more light weight and efficient display.

Allowable Subject Matter

5. Claims 10, 15 and 23 are allowed over the prior art of record.

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6. Claims 32-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to the claims have been considered but are not persuasive.

Applicant asserts that the prior art does not disclose an increase in light amount when the object is present at the touch pad device. Examiner agrees, however, such language is not found in the independent claims.

Thus, as set forth above, this rejection is proper.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh X Luu
Primary Examiner
Art Unit 2878

01/2005